

Overview: A great deal of time and effort is put into developing schemes for the conservation of collections housed in historic buildings. Environmental equipment must preserve and safeguard the photographic collection and be designed and erected properly and with due care and attention to detail.

Challenge: All harmful biologically active agents must be eliminated from the collection and from all areas within the building.

Case: Photography requires a special kind of care and attention and has a long and interesting history of the mutability of the medium. Engineering environmental systems to safeguard photographic objects requires careful treatment, in particular when that collection is housed in a historical building, into which not a single hole can be drilled.

Problem: Photographic materials are exceptionally vulnerable to airborne pollution, and important collections justify the use of mechanical ventilation that incorporates ionization to remove gases and pollutants such as Sulphur dioxide, ozone and nitrogen oxide, as well as smoke, dust and deposits from diesel fumes, which rise to high levels in urban environments.

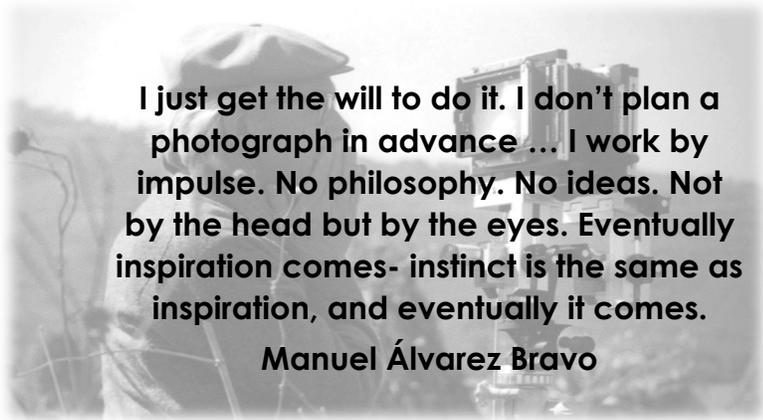
Solution: A single phase stainless steel dehumidification system, with a built-in heat recovery and a self-regulating heater, a capacity of 0.5kg/h (dehumidifying capacity at 20°C/60% RH), and a dry air flow of 190m³/h was optimal for the safeguarding the collection. A high performance cooling system was installed as well as a reactive plasma ionization system to filter out contaminants.

Mitigation Strategy: The planning phase of this project included an assessment of the impact it would have on the historic building, and of its potential risks to the collection. The assessment of the environmental (heat and moisture) effects of human interaction was also considered.

Winner of the 1975

Guggenheim Fellowship for Creative Arts, Latin America and Caribbean, and the 1984 Hasselblad Award, Manuel Álvarez Bravo's photography is synonymous with the documented work of Mexican painters like Diego Rivera and Frida Kahlo. His subjects range from the nude to folk art, particularly burial rituals and decorations, and were featured in the journal *Mexican Folkways*.

A stable environment is essential for the preservation of photographic materials. Fluctuating environmental conditions cause materials to age more rapidly. Negatives and prints dry out and become brittle in high heat; high humidity encourages the growth of mold; fluctuating heat/humidity accelerates the breakdown of materials.



I just get the will to do it. I don't plan a photograph in advance ... I work by impulse. No philosophy. No ideas. Not by the head but by the eyes. Eventually inspiration comes- instinct is the same as inspiration, and eventually it comes.

Manuel Álvarez Bravo